

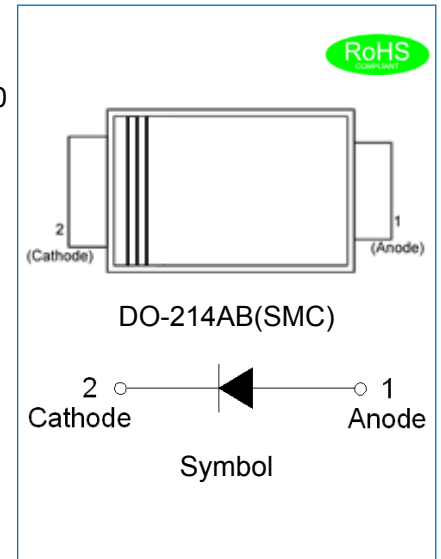


US5A~US5M ULTRA FAST RECOVERY RECTIFIER

Rev.2.4

DESCRIPTION

- ◇ Plastic package has underwriters laboratory flammability classification 94V-0
- ◇ For surface mounted applications in order to optimize board space
- ◇ Glass passivated chip junction
- ◇ Lead free in comply with EU RoHS 2011/65/EU directives
- ◇ Ultrafast recovery time for high efficiency



MECHANICAL DATA

- ◇ Case: JEDEC DO-214AB molded plastic
- ◇ Terminals: Solder plated, solderable per J-STD-002
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.26 gram

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified.)

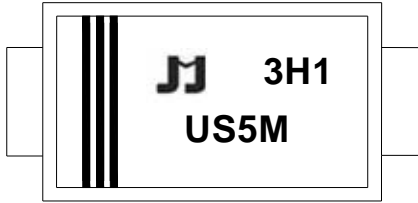
Parameter	Symbol	US5A	US5B	US5D	US5G	US5J	US5K	US5M	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward current at $T_C=100^\circ C$	$I_{F(AV)}$	5.0							A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150				125			A
Maximum forward voltage @ $I_F=5A$	V_F	1.0		1.3		1.7			V
Maximum DC reverse current at rated DC blocking voltage	$T_j=25^\circ C$	5.0							μA
	$T_j=150^\circ C$	500							μA
Typical junction capacitance $V_R=4.0V, f=1MHz$	C_J	50				35			pF
Operating junction and storage temperature range	T_j, T_{stg}	-55 to +150							$^\circ C$
Maximum reverse recovery time $I_F=0.5A, I_R=1A, I_{rr}=0.25A$	t_{rr}	50				75			ns

THERMAL RESISTANCES

Symbol	Parameter	US5A	US5B	US5D	US5G	US5J	US5K	US5M	Unit
$R_{th(j-L)}$	Junction to lead(note1)	15							°C/W

Note1: Thermal resistance from junction to lead mounted on P.C.B. with 8.0 mm x 8.0 mm copper pad areas.

MARKING



U	Ultra Fast Recovery Rectifier
S	Surface Mount
5	$I_{F(AV)}=5A$
M	$V_{RRM}:1000V$

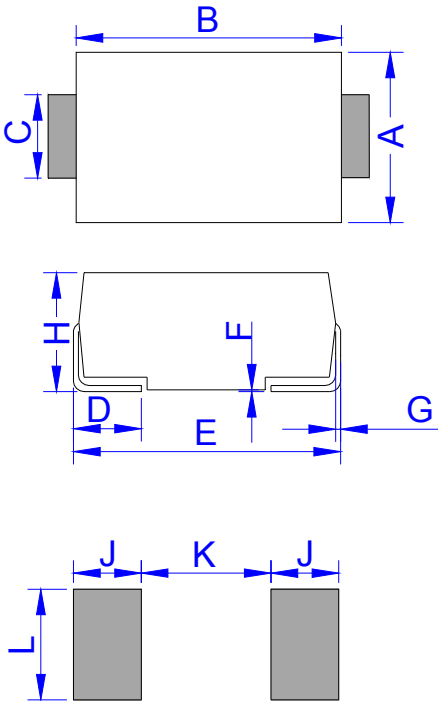
$xH1$: Month, 1、2、3 ~ 9、A、B、C

$3x1$:

2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

$3Hx$: Batch number

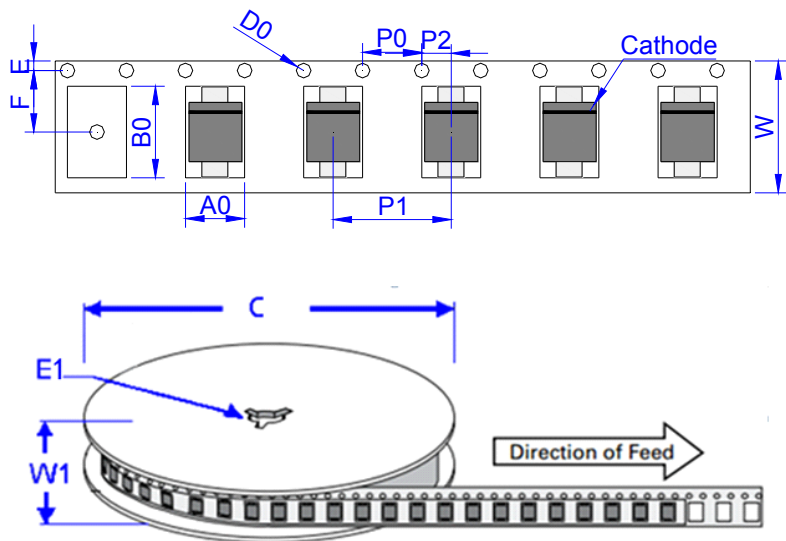
PACKAGE MECHANICAL DATA



DO-214AB (SMC)

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.75	6.25	0.226	0.246
B	6.90	7.40	0.272	0.291
C	2.75	3.25	0.108	0.128
D	0.95	1.52	0.037	0.060
E	7.70	8.20	0.303	0.323
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.15	2.62	0.085	0.103
J	2.40		0.094	
K		4.20		0.165
L	3.30		0.130	

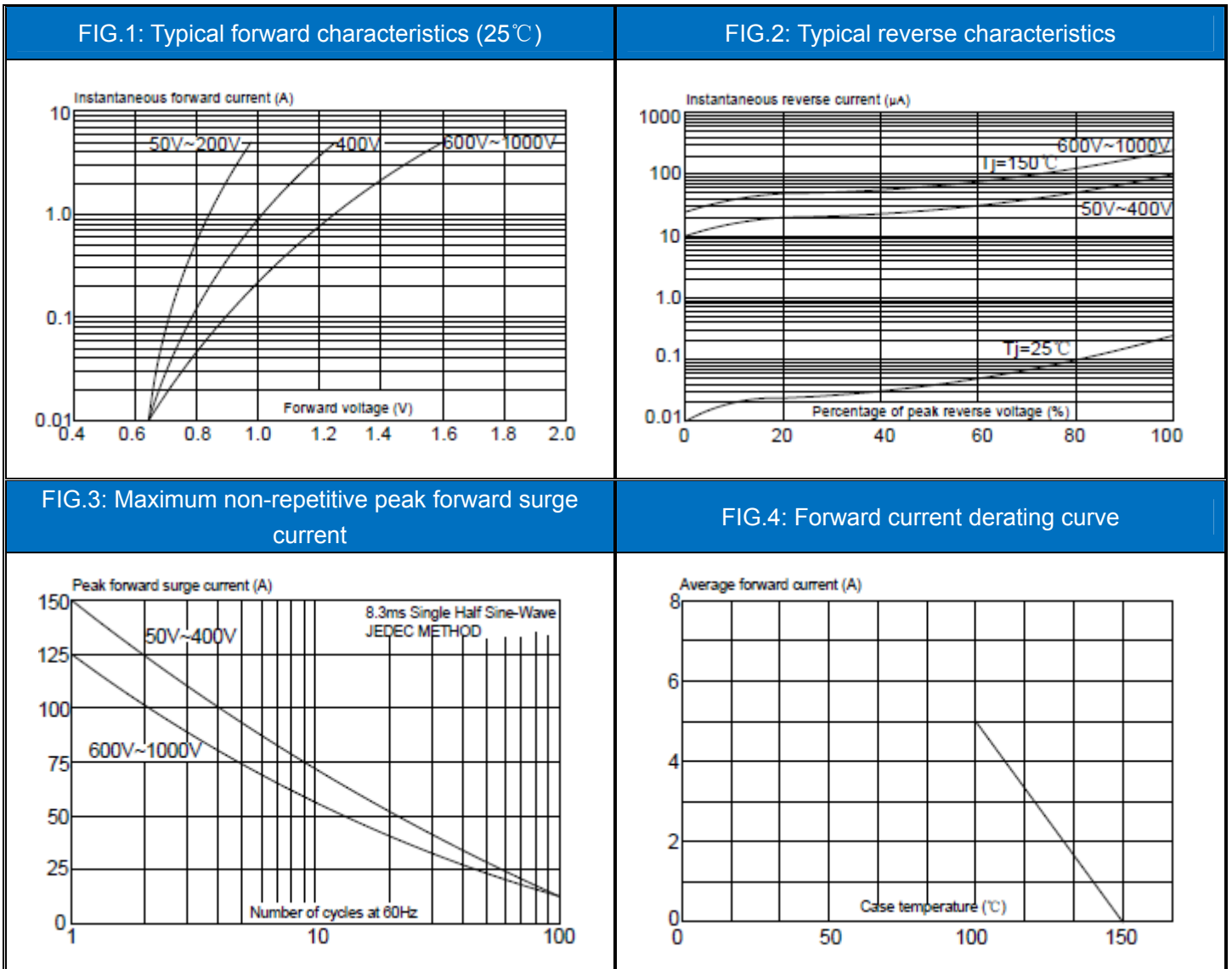
TAPE AND REEL SPECIFICATION-SMC



Ref.	Dimensions	
	Millimeters	Inches
A0	6.05 ± 0.3	0.238 ± 0.012
B0	8.31 ± 0.3	0.327 ± 0.012
C	330.0	13.0
D0	1.55 ± 0.1	0.061 ± 0.004
E	1.75 ± 0.2	0.069 ± 0.008
E1	13.3 ± 0.3	0.524 ± 0.012
F	7.50 ± 0.2	0.295 ± 0.008
P0	4.00 ± 0.2	0.157 ± 0.008
P1	8.00 ± 0.2	0.3145 ± 0.008
P2	2.00 ± 0.2	0.079 ± 0.008
W	16.0 ± 0.2	0.630 ± 0.008
W1	19.7 ± 2.0	0.776 ± 0.079

OUTLINE	UNIT WEIGHT (g/PCS) typ.	REEL (PCS)	PER CARTON (PCS)	REEL DIAMETERS (mm)
TAPING	0.26	3,000	48,000	330

CHARACTERISTICS CURVE



Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co.,Ltd assumes no responsibility for the consequences of use without consideration for such information nor use beyond it.

Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement.

Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information.

This document is the 2.4th version which is made in 10-July-2019. This document supersedes and replaces all information previously supplied.

 is a registered trademark of Jiangsu JieJie Microelectronics Co.,Ltd.

Copyright ©2019 Jiangsu JieJie Microelectronics Co.,Ltd. Printed All rights reserved.